

The location and condition shift registers are binary shift registers and will be filled by "1" or "0". In the case of the location shift register "1" represents the fact the cell contains product and "0" means the cell is empty. In the condition shift register "1" represents an acceptable product and "0" represents an unacceptable product.

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The lot data shift register is a non-binary shift register and contains data pertaining to the manufacture and/or prescription of the contact lens. The lot shift register may contain the data necessary for the manufacturing process or 10 may comprise a pointer or link to a computer file containing the data. For convenience, the numeral "3" represents the lot data for the first lot and the numeral "5" represents the data for the second lot.

The arrow marked A represents a sensor in the production line for 15 determining whether the product passes or fails a particular test. The sensor may detect the presence or absence of product, read a bar code and compare with lot data information, inspect a lens e.g. as disclosed in WO 2004/056555, detect the presence of a label or a blister package etc. If the product passes the test the condition shift register will be marked "1" and if the product fails 20 the test the condition shift register will be marked as "0".

The arrow marked B represents a reject mechanism on the production line. In the event the condition shift register is marked "1" the reject mechanism will not operate. In the event the condition shift register is marked "0" the reject 25 mechanism will operate ejecting the product from the production line and therefore the location shift register will be altered from "1" to "0". Diagrams (a) and (b) illustrate this concept with Diagram (a) showing detector A failing a product in the cell and Diagram (b) shows the production line after the shift registers have been indexed by one cell showing the reject mechanism B 30 ejecting the product from the production line. The reject mechanism may comprise a sensor to confirm the product has been ejected. The ejection of the product results in the location register being marked "0".

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CLAIMS

1. A method for controlling a production line for the manufacture and/or packaging of contact lenses which production line simultaneously processes at least two lots, the method comprising dividing at least a portion of the production line into a series of cells through which the contact lenses pass sequentially, and providing a control system comprising at least three shift registers each containing information about each of said cells, including:

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(a) a location shift register which indicates whether a cell should be empty or occupied,

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(b) a lot data shift register which is a non-binary shift register and contains manufacturing and/or prescription data about the contact lens which should be in the cell and

(c) a condition shift register which provides an indication of the condition of the lens in the cell,

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and simultaneously indexing all of said shift registers as a lens passes down the production line from one cell to the next cell.

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2. A method as claimed in Claim 1 which comprises detecting the presence or absence of product in a cell and comparing the result with the information for that cell in the location shift register.

3. A method as claimed in Claim 2 in which a plurality of adjacent empty cells is inserted at the start and end of a manufacturing lot.

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4. A method as claimed in Claim 3 in which detection of said plurality of empty cells is used to trigger a processing event.

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5. A method as claimed in Claim 4 in which the processing event is selected from resetting a processing station, wiping data from a processing station and instigating a reporting action.
- 5 6. A method as claimed in any preceding claim in which a gap comprising a predetermined number of empty cells is inserted between successive manufacturing lots on the production line and the control system comprises a gap defence mechanism including detectors and counters to monitor said gap as it proceeds down the production line.
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7. A method as claimed in any preceding claim in which information from the lot data shift register is used to control the activity of a cell.
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8. A method as claimed in any preceding claim which comprises the step of inspecting the product in a cell and/or monitoring the production activity in a cell and comparing the resulting data with data in the lot data shift register.
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9. A method as claimed in any preceding claim in which information in the condition shift register is used to trigger ejection of a product from the production line.
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10. A method as claimed in Claim 9 in which ejection of product from the production line causes the location shift register to change to signify the cell is empty of product.